This entire chapter has been notified using the RMA Part One, Schedule 1 process (P1 Sch1).

Tūāhanga

Infrastructure

INF	Infrastructure
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Introduction

Infrastructure plays a critical role in the successful functioning of Wellington City and the lives of Wellingtonians. Whether it is the provision or disposal of water through the three waters network, facilitating the movement of people and goods through the transport network, or in the provision of infrastructure by network utility operators, infrastructure is central to our daily lives.

This chapter of the District Plan seeks to provide for the operation, maintenance and development of infrastructure within the City. The definition of Infrastructure in the RMA includes "structures for transport on land by cycleways, rail, roads, walkways, or any other means". Given this, the Infrastructure Chapter includes provisions for the transport network matters concerning the operation, maintenance, repair and renewal, upgrading and development of the transport network and connections to the transport network.

Infrastructure is critical for the economic, social, cultural and environmental wellbeing of people and communities, and to provide for their health and safety at a national, regional and local scale, including through:

- 1. The effective, safe, secure and efficient transmission or distribution of electricity, gas, fuel or energy;
- 2. An integrated, efficient and safe transport network for the movement of people and goods by land, air or water, including public transport, walking, cycling, private vehicles;
- 3. Effective, reliable and future-proofed communications networks and services; and
- 4. Effective, resilient, efficient and safe water, wastewater and stormwater, networks and services.

However, infrastructure can also give rise to adverse effects on surrounding land uses and the environment which require consideration. Likewise, surrounding land uses can give rise to reverse sensitivity effects on infrastructure. This chapter sets out provisions addressing these effects.

The provisions within this chapter apply on a City-wide basis. As such the rules in the zone chapters and earthworks chapter do not apply to infrastructure unless specifically stated within an infrastructure rule or standard. Likewise, the rules in the following overlay chapters do not apply to infrastructure unless specifically stated in an infrastructure rule or standard:

- Three Waters
- Renewable Electricity Generation
- Natural Hazards
- Historic Heritage
- Notable Trees
- Sites and Areas of Significance to Māori
- Viewshafts
- Ecosystems and Indigenous Biodiversity

- Natural Character
- Natural Features and Landscapes
- Public Access
- Coastal Environment
- Earthworks.

Instead, these matters are addressed within the Infrastructure chapter and the following Infrastructure subchapters address the requirements particular to the overlays as follows:

- INF-CE (Coastal Environment and Natural Character);
- INF-ECO (Significant Natural Areas Ecosystems and Indigenous Biodiversity);
- INF-NFL (Outstanding Natural Landscapes, Outstanding Natural Features, Special Amenity Landscapes, Ridgelines and Hilltops-Natural Features and Landscapes);
- INF-NG (National Grid):
- INF-NH (Natural Hazards); and
- INF-OL (Other Overlays).

The provisions of the overlay sub-chapters apply in addition to the provisions of this chapter. In the case of conflict with any provisions of this chapter and a sub-chapter, the provisions of the sub-chapter will prevail.

Further, the Resource Management Act, and therefore the District Plan, share the same broad definition of 'infrastructure', which includes airport and port facilities, and renewable electricity generation. Notwithstanding that, this the rules within the Infrastructure Chapter (including the infrastructure sub chapters) doeses not apply to activities that fall under the definition of airport activity purposes or airport related activityies (and are located within which are dealt with in the Airport Zone chapter), or the definition of port or operational port activities (and are located within which are dealt with in the Port Zone chapter), or the definition of Renewable Electricity Generation Activity (which are dealt with in the Renewable Electricity Generation chapter). Any infrastructure in the airport or port zones areas that is inconsistent with does not meet those definitions is managed by the provisions in this Infrastructure Chapter, including management of the Moa Point Seawall, as mapped in the ePlan. The Infrastructure Chapter (including the infrastructure sub chapters) also does not apply to activities that fall within the definition of Renewable Electricity Generation Activity (which are dealt with in the Renewable Electricity Generation chapter).

Lastly, the Act and therefore District Plan definition of 'infrastructure' includes three waters infrastructure. The Three Waters chapter applies in terms of land development effects on three waters infrastructure, however this chapter applies to the construction, operation and maintenance of the infrastructure itself.

Infrastructure which is proposed to be located within legal road is subject to the provisions of this chapter. All roads have an underlying zoning, and as such the zone based provisions in this chapter apply.

Additional regulatory requirements, separate to the District Plan, are also relevant to infrastructure, including:

- 1. The National Policy Statement on Electricity Transmission;
- The Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 (NESETA);
- 3. The Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016(NESTF);
- 4. The National Code of Practice for Utility Operators' Access to Transport Corridors;
- 5. The New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001); and
- 6. Electricity (Hazards from Trees) Regulations 2003.

In the case of conflict with any provision of this plan and any national environmental standard (including the NESETA or the NESTF), under Section 43B of the Act the provisions of the national environmental standards

will prevail.

Other relevant District Plan provisions

It is important to note that in addition to the provisions in this chapter, the following Part 2: District-Wide chapters may also be of relevance, including:

- Subdivision The Subdivision Chapter contains provisions which manage subdivision of land.
- **Light and glare** The Light Chapter contains specific provisions relating to light spill and the management of effects on residential areas.
- **Noise** The Noise Chapter contains specific controls in relation to noise, including effects standards NOISE-S1 (maximum noise levels).
- **Signs** The Signs Chapter contains specific controls in relation to signage, including official signs, the effects of signs on road safety, and third party signage.
- **Contaminated land** The Contaminated Land Chapter manages the use and development of Contaminated Land or potentially Contaminated Land.
- **Hazardous substances** The Hazardous Substances Chapter contains provisions to manage Hazardous Substances.
- Trees The Notable Tree chapter contains specific provisions relating to the management of Notable Trees.
- Designations

Resource consent may therefore be required under rules in this chapter as well as other chapters. Unless specifically stated in a rule or in this chapter, resource consent is required under each relevant rule. The steps to determine the status of an activity are set out in the General Approach chapter.

Objectives	
INF-O1	The benefits of infrastructure
	The national, regional and local benefits of infrastructure are recognised and provided for.
INF-O2	Adverse effects of infrastructure
	The adverse effects of infrastructure on the environment are managed, while recognising:
	The functional and operational need of infrastructure; and That positive effects of infrastructure may be realised locally, regionally or nationally.
INF-O3	Adverse effects on infrastructure
	Protect regionally significant infrastructure from incompatible subdivision, use and development, that may compromise its efficient and safe operation.
	Manage the adverse effects, including reverse sensitivity effects or of subdivision use and development on the function and operation of other infrastructure.
INF-O4	Infrastructure availability
	Safe, effective and resilient infrastructure is available for, and integrated with, existing and planned subdivision, use and development.
INF-O5	Transport network
	The transport network:
	 Improves connectivity, enabling people of all ages and abilities, and goods to move safely and effectively regardless of transport mode; Supports well-functioning urban environments; Supports the health and well-being of people; and Supports development infrastructure, additional infrastructure and green infrastructure.
INF-O6	Amateur radio configurations

	The adverse effects of amateur radio configurations on the environment are managed.
Policies	
INF-P1	Recognising and providing for infrastructure
	Recognise the benefits of infrastructure by:
	 Enabling the safe, resilient, effective and efficient operation, maintenance, repair, minor upgrade or removal of existing infrastructure; Enabling investigation, monitoring and navigation activities associated with infrastructure operations; Providing for significant upgrades to, and the development of new infrastructure; and Providing for the functions and responsibilities of infrastructure as lifeline utilities during an emergency.
INF-P2	Coordinating infrastructure with land use, subdivision, development and urban growth
	Enable the efficient coordination, integration and alignment of infrastructure planning and delivery with land use, subdivision, development and urban growth so that <u>existing and</u> future land use and infrastructure is integrated, efficient and aligned <u>on an ongoing basis</u> .
INF-P3	Technological advances
	Provide flexibility to adopt new technologies for infrastructure that:
	 Allow for the re-use of redundant services and structures; Increase resilience, safety or reliability of networks and services; Result in environmental benefits or enhancements; or Promote environmentally sustainable outcomes.
INF-P4	Undergrounding of infrastructure
	Encourage the undergrounding of new infrastructure in urban areas where it is practicable and technically feasible.
INF-P5	Adverse effects of infrastructure
	Manage the adverse effects of upgrades to, or the development of new infrastructure, including effects on:
	Natural and physical resources; Amenity values;
	Sensitive activities; Hereight in the identified values of Overlays;
	5. The safe and efficient operation of other infrastructure; and
INE DC	6. The health, well-being and safety of people and communities.
INF-P6	Consideration of the adverse effects of infrastructure
	When considering the adverse effects of infrastructure on the environment recognise that there may be situations where all adverse effects, including construction effects, cannot be avoided, and as such must be remedied or mitigated through having regard to the following:
	 The extent to which adverse effects can be avoided, remedied or mitigated may be constrained by the functional or operational need of the infrastructure; The time, duration, or frequency of adverse effects; The necessity of the infrastructure including: a. The need to quickly repair and restore disrupted services; and b. The impact of not operating, repairing, maintaining, upgrading, removing or developing infrastructure;

- 4. Existing infrastructure including:
 - a. The complexity and connectedness of networks and services; and
 - b. The potential for co-location and shared use of infrastructure corridors;
- 5. Anticipated outcomes for the receiving environment and the degree to which past modifications have compromised the achievement of those outcomes;
- 6. The benefits derived from the infrastructure at a local, regional and national scale; and
- 7. The extent to which the infrastructure is integrated with, and necessary to support, planned urban development.

INF-P7

Incompatible Subdivision, Use and Development Reverse sensitivity

Avoid or where appropriate, manage activities that may compromise the efficient operation, maintenance, repair, replacement, upgrading, renewal or development of regionally significant infrastructure.

Manage the establishment or alteration of sensitive activities near existing lawfully established infrastructure, including by:

- 1. Requiring subdivision of sites containing the National Grid to:
 - a. Retain the ability for the network utility operator to access, operate, maintain, repair and upgrade National Grid; and
 - Ensure that future buildings, earthworks and construction activities maintain safe electrical clearance distances under all building and National Grid operating conditions;
- 1. Managing land disturbance and activities sensitive to gas transmission to avoid or mitigate potential adverse effects of, and on, the gas transmission pipelines network;
- 2. Requiring subdivision of sites containing a gas transmission pipeline network to retain the ability for the network utility operator to access, operate, maintain, repair and upgrade the gas transmission pipelines network; and
- 3. Managing the activities of others through <u>methods such as</u> set-backs and design controls where it is necessary to achieve appropriate protection of infrastructure.

INF-P8

Amateur radio configurations

Design, construct and locate amateur radio configurations to minimise adverse effects on the existing and anticipated amenity of adjoining properties and the surrounding area.

INF-P9

Upgrading and development of the transport network

Enable the upgrading and development of the transport network where, as far as practicable, it:

- 1. Integrates with the existing transport network and any other planned network upgrades or development;
- 2. Does not compromise the safe and effective functioning of the transport network;
- 3. Responds to site and topographical constraints including opportunities to reduce the effects of earthworks on landscape and ecological values;
- 4. Provides for high levels of connectivity within and between transport modes;
- Provides for pedestrian, cycling and micromobility safety and connectivity including access to and usability of public open spaces and access to public transport services; and
- 6. Provides transport corridors which:
 - a. Allocate adequate space in the corridor for walking, cycling, micromobility, public transport (including stops), loading and parking, vehicles, infrastructure and street trees; and
 - b. Include street trees that are suitable for their specific locations in the road reserve, where these:
 - i. Are a species appropriate to the site's growing conditions including soil, slope, aspect, wind, drought and salt tolerance;
 - ii. Contribute to high quality public amenity through species diversity, habitat and food source value and appearance (mature height, stem girth and form);
 - iii. Have low maintenance requirements and high tolerance to pruning;

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	iv. Are selected and sited to minimise safety risks for pedestrians, especially at night;
	v. Are sited to avoid compromising traffic safety sightlines in respect of traffic lights, signs, intersections, bus stops, pedestrian crossings and vehicle crossings; and
	vi. Are sited and planted to avoid compromising buildings, structures or infrastructure.
INF-P10	Classification of roads
	Classify roads according to the Waka Kotahi New Zealand Transport Agency Waka Kotahi's One Network Framework.
INF-P11	Connections to roads
	Enable safe and effective connections between sites and the transport network by requiring connections to roads to address:
	 The One Network Framework classification, characteristics and operating speed of the road and the number and types of vehicles accessing the site; Opportunities to share and minimise the number of connections; Public health and safety including the safe functioning of the transport network and the safety of pedestrians, cyclists and micromobility device users; and Site or topography constraints including reduced visibility.
INF-P <u>11</u> 42	Infrastructure within roads
_	Encourage the use of roads for other infrastructure, including where it is accordance with the
	National Code of Practice for Utility Operators' Access to Transport Corridors 2019.
INF-P <u>12</u> 13	Infrastructure within riparian margins
	Provide for infrastructure within riparian margins where:
	 Natural character is maintained; and The infrastructure activity is designed to minimise the adverse effects on the natural character.
Rules for Infra	structure - General
INF-R1	Operation, maintenance and repair, or removal of existing above and underground infrastructure and ancillary vehicle access tracks
All Zones	Activity status: Permitted
	Where:
	 a. All above ground structures that are no longer required for the operation of the infrastructure are removed within twelve months of being replaced or becoming redundant; b. Compliance is achieved with INF-S1; and c. Compliance is achieved with the following standards: i. In relation to existing underground infrastructure, INF-S2; ii. INF-S3; and iii. INF-NG-S18S12.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with INF-R1.1.a and or INF-R1.1.c cannot be achieved.

	Matters of discretion are:
	1. The matters set out in INF-P1, INF-P3, INF-P5 and INF-P6.
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with INF-R1.1.b cannot be achieved.
INF-R2	New underground infrastructure (including customer connections), and upgrading of existing underground infrastructure
All Zones	1. Activity status: Permitted
	Where:
	 a. Compliance is achieved with INF-S1; and b. Compliance is achieved with the following standards: i. INF-S2; ii. INF-S3; iii. INF-S7; and iv. INF-NG-S18S12
	Note: Aboveground ancillary structures are provided for in INF-R7.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with INF-R2.1.b cannot be achieved.
	Matters of discretion are:
	1. The matters set out in INF-P1, INF-P3, INF-P4, INF-P5 and INF-P1213., and, specific to activities directly associated to the National Grid, INF-NG-P58, INF-NG-P61 and INF-NG-P62.
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with INF-R2.1.a cannot be achieved.
INF-R3	Upgrading of existing aboveground infrastructure
All Zones	Activity status: Permitted
	Where:
	 a. Compliance is achieved with INF-S1; and b. Compliance with the following standards is achieved: INF-S3; INF-S4; and INF-NG-S18S12.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with the requirements of INF-R3.1.b cannot be achieved.

	Matters of discretion are:
	1. The matters set out in INF-P1, INF-P2, INF-P3, INF-P5 and INF-P6.
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with INF-R3.1.a cannot be achieved.
INF-R4	New vehicle access tracks for infrastructure
All Zones	Activity status: Permitted
	Where:
	a. Compliance is achieved with INF-S3 and INF-S7.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with any of the requirements of INF-R4.1 cannot be achieved.
	Matters of discretion are:
	The matters set out in INF-P1, INF-P2, INF-P5, INF-P6 and INF-P1243., and, specific to activities directly associated to the National Grid, INF-NG-P58 and INF-NG-P62.
INF-R5	New aboveground customer connections line
All Zones	Activity status: Permitted
	Where:
	a. Compliance is achieved with INF-S5.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with any of the requirements of INF-R5.1 cannot be achieved.
	Matters of discretion are:
	1. The matters set out in INF-P1, INF-P5 and INF-P6.
INF-R6	Temporary infrastructure
All Zones	1. Activity status: Permitted
	Where:
	 a. All temporary infrastructure structures cease operating and are removed from the site within 12 months of the work commencing; b. Compliance is achieved with INF-S1; and c. Compliance is achieved with the following standards: INF-S3; INF-S6; INF-S6; INF-S7; INF-S8; INF-S9;

	vi. INF-S10; vii. INF- <u>NG-S18S12;</u> and viii. INF-S <u>14</u> 1 5 .
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with the requirements of INF-R6.1.a or INF-R6.1.c cannot be achieved.
	Matters of discretion are:
	 The extent and effect of non-compliance with any relevant standard not met as specified in the associated assessment criteria for the infringed standard; and The matters set out in INF-P1, INF-P3, INF-P5, INF-P6 and INF-P1243
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with the requirements of INF-R6.1.b cannot be achieved.
INF-R7	Infrastructure Sstructures not otherwise managed by specific rules in this chapter associated with infrastructure including:
	1. Substations (including switching stations);
	2. Transformers;
	3. Gas transmission and distribution structures;
	4. Energy storage batteries not enclosed by a building; and
	5. Communications kiosks , ; and
	6. Bus Sshelters; and
	7. Electric Vvehicle Ccharging Sstations.
All Zones	Activity status: Permitted
	Where:
	 a. In the General Rural Production, Rural Lifestyle or General Industrial Zones, the maximum building and structure height standard for that Zone is complied with. In all other zones INF-S6 must be complied with; b. Any substation, gas regulation valve and/or takeoff station or energy storage batteries are set back at least 2m from a residential site side or rear boundary (but not a road boundary); c. Compliance is achieved with INF-S7, and INF-S1415 and INF-S16; and d. Compliance is achieved with INF-S1.
All Zones	2. Activity Status: Restricted Discretionary
	Where:
	a. Compliance with the requirements of INF-R7.1.a, INF-R7.1.b or INF-R7.1.c cannot be achieved.
	Matters of discretion are:

	 The extent and effect of non-compliance with any relevant standard not met as specified in the associated assessment criteria for the infringed standard; and The matters set out in INF-P1, INF-P2, INF-P3, INF-P5, INF-P6, INF-P9, INF-P11 and INF-P1213-, and, specific to activities directly associated to the National Grid, INF-NG-P58 and INF-NG-P62.
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with the requirements of INF-R7.1.d cannot be achieved.
INF-R8	New infrastructure contained within existing buildings
All Zones	Activity status: Permitted
	Where:
	a. Compliance is achieved with INF-S1.
All Zones	2. Activity status: Non-Complying
	Where:
	a. Compliance with the requirements of INF-R8.1.a cannot be achieved.
INF-R9	Navigational aids, sensing and environmental monitoring equipment (including air quality and meteorological)
All Zones	1. Activity status: Permitted
	Where:
	a. Compliance is achieved with the following standards: i. INF-S3;
	ii. INF-S6; iii. INF-S7;
	iv. INF-S8; and v. INF- <u>NG-S18</u> S12.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with the requirements of INF-R9.1.a cannot be achieved.
	Matters of discretion are:
	1. The matters set out in INF-P1, INF-P2, INF-P3, INF-P5, INF-P6 and INF-P <u>12</u> 13.
INF-R10	New overhead lines and associated support structures that convey telecommunications or electricity below 110kV, and associated support structures.
General Rural Zone	Activity status: Permitted
	Where:
Large Lot Residential	a. Compliance is achieved with the following standards:
Zone	i. INF-S3; ii. INF-S6;
General Industrial	iii. INF-S7; iv. INF-S8; and

Zone	v. INF- <u>NG-S18</u> S12 .
Light Industrial Zone	
Airport Zone	
Hospital Zone	
Port Zone	
Stadium Zone	
Tertiary Education Zone	
General Rural Zone	2. Activity status: Restricted Discretionary
Large Lot Residential Zone	Where: a. Compliance with any of the requirements of INF-R10.1 cannot be achieved.
General Industrial Zone	Matters of discretion are: 1. The matters set out in INF-P1, INF-P2, INF-P5, INF-P6 and INF-P1243, and, specific to activities directly associated to the National Grid, INF-NG-P58 and INF-NG-P62.
Light Industrial Zone	
Airport Zone	
Hospital Zone	
Port Zone	
Stadium Zone	
Tertiary Education Zone	
All other Zones	3. Activity status: Discretionary
INF-R11	Telecommunications or radiocommunication activities (not otherwise provided for by another rule in this table and not regulated by the NESTF)
All Zones	Activity status: Permitted
	Where:

	a. Compliance is achieved with the following standards: i. INF-S6; ii. INF-S7; iii. INF-S8; iv. INF-S9; v. INF-S10; and vi. INF-S12.; and vii. INF-S15. b. Compliance is achieved with INF-S1.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with the requirements of INF-R11.1 cannot be achieved.
	Matters of discretion are:
	 The extent and effect of non-compliance with any relevant standard not met as specified in the associated assessment criteria for the infringed standard; and The matters set out in INF-P1, INF-P2, INF-P5, INF-P7 and INF-P1243.
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with the requirements of INF-R11.1.b cannot be achieved.
INF-R12	New telecommunications poles and new antennas (regulated by the NESTF that do not meet the permitted activity standards in those Regulations)
All Zones	Activity status: Controlled
	Where:
	 a. The width of any panel antenna does not exceed 0.8m; b. The diameter of any dish antenna located in the road reserve does not exceed: i. 0.6m in a residential zone; or ii. 0.9m in all other zones; c. The diameter of any dish antenna not located in the road reserve does not exceed: i. 0.6m in a residential zone; or ii. 2.0m in all other zones; d. Compliance is achieved with INF-S8; and e. Compliance is achieved with INF-S1.
	Matters of control are:
	 The functional and operational needs of, and benefits from, the infrastructure, including the potential impact on the levels of service or health and safety if the work is not undertaken; and The amenity values of the relevant zone and the extent to which any adverse visual amenity effects can be managed.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with any of the requirements of INF-R12.1.a, INF-R12.1.b, INF-R12.1.c and INF-R12.1.d cannot be achieved.

	Matters of discretion are:
	1. The matters set out in INF-P1, INF-P2, INF-P3, INF-P5, INF-P6 and INF-P1243.
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with the requirements of INF-R12.1.e cannot be achieved.
INF-R13	New antenna attached to a building (regulated by the NESTF that do not meet the permitted standards in the NESTF)
All Zones	1. Activity status: Controlled
	Where:
	 a. A new panel antenna does not exceed a maximum face area of 2m²; and b. The antenna does not exceed a height of 5m above the point of attachment to the building; c. In any residential zone, the lowest point at which the antenna is attached to the building is at least 15m above the ground; and d. INF-S1 is complied with.
	Matters of control are:
	 The functional and operational needs of, and benefits from, the infrastructure, including the potential impact on the levels of service or health and safety if the work is not undertaken; and The amenity values of the relevant zone and the extent to which any adverse visual amenity effects can be managed.
All Zones	Activity status: Restricted Discretionary
	Where:
	a. Compliance with any of the requirements of INF-R13.1.a, INF-R13.1.b or INF-R13.1.c cannot be achieved.
	Matters of discretion are:
	1. The matters set out in INF-P1, INF-P2, INF-P3, INF-P5 and INF-P6.
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with the requirements of INF-R13.1.d cannot be achieved.
INF-R14	New telecommunications cabinets (regulated by the NESTF that do not meet the permitted standards of the NESTF)
All Zones	1. Activity status: Controlled
	Where:
	 a. A single, standalone telecommunications cabinet does not exceed a footprint of 2.5m² or a height of 2m; b. A group of telecommunications cabinets do not exceed a footprint of 3m²; and c. Compliance is achieved with INF-S7 and INF-S1445.
	Matters of control are:

	 The functional and operational needs of, and benefits from, the infrastructure, including the potential impact on the levels of service or health and safety if the work is not undertaken; and The amenity values of the relevant zone and the extent to which any adverse visual amenity effects can be managed.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with any of the requirements of INF-R14.1 cannot be achieved.
	Matters of discretion are:
	The extent and effect of non-compliance with any relevant standard not met as specified in the associated assessment criteria for the infringed standard; and 2. The matters set out in INF-P1, INF-P2, INF-P3, INF-P5, INF-P6 and INF-P1213.
INF-R15	Infrastructure buildings and structures not provided for by any other rule in this table
All Zones	Activity status: Permitted
	Where:
	 a. Compliance is achieved with all bulk and location standards for the zone in which the building or structure is located; b. Compliance is achieved with INF-S7 and INF-S13415; and c. Compliance is achieved with INF-S1.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with the requirements of INF-R15.1.a or INF-R15.1.b cannot be achieved.
	Matters of discretion are:
	 The extent and effect of non-compliance with any relevant standard not met as specified in the associated assessment criteria for the infringed standard; and The matters set out in INF-P1, INF-P2, INF-P3, INF-P5, INF-P6 and INF-P1243, and, specific to activities directly associated to the National Grid, INF-NG-P58, INF-NG-P61 and INF-NG-P62.
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with the requirements of INF-R15.1.c cannot be achieved.
INF-R16	New electricity lines and associated support structures (including poles and towers) that convey electricity of 110kV or above
All Zones	Activity status: Restricted Discretionary
	Matters of discretion are:
	1. The matters set out in INF-P1, INF-P2, INF-P3, INF-P5, INF-P6 and INF-P1213-, and, specific to activities directly associated to the National Grid, INF-NG-P58, INF-NG-P61 and INF-NG-P62.
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INF-R17	New aboveground pipelines (that are not customer connections)
All Zones	Activity status: Discretionary
INF-R18	New water, wastewater and stormwater pump stations
All Zones	Activity status: Permitted
	Where:
	a. Compliance is achieved with the following standards: i. INF-S2; ii. INF-S3; iii. INF-S6; iv. INF-S7; v. INF-S12; and vi. INF-S13415.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with any of the requirements of INF-R18.1 cannot be achieved.
	Matters of discretion are:
	 The extent and effect of non-compliance with any relevant standard not met as specified in the associated assessment criteria for the infringed standard; and The matters set out in INF-P1, INF-P3, INF-P5, INF-P6 and INF-P1243.
INF-R19	New water treatment plants
General Rural Zone Large Lot Residential Zone General Industrial Zone Light Industrial Zone Airport Zone Hospital Zone Port Zone Stadium Zone Tertiary Education Zone	1. Activity status: Permitted Where: a. Relevant zone bulk and location standards are complied with; and b. Compliance is achieved with the following standards: i. INF-S2; ii. INF-S3; iii. INF-S7; iv. INF-S12;and v. INF-S13415.
_ = - : · =	

Rural Zone	Where:
Large Lot Residential Zone	a. Compliance with any of the requirements of INF-R19.1 cannot be achieved.
General Industrial Zone Light Industrial Zone Airport Zone Hospital Zone Port Zone Stadium Zone	 Matters of discretion are: The extent and effect of non-compliance with any relevant standard not met as specified in the associated assessment criteria for the infringed standard; and The matters set out in INF-P1, INF-P2, INF-P3, INF-P5, INF-P6 and INF-P1243.
Tertiary Education Zone	
All other Zones	3. Activity status: Discretionary
INF-R20	New wastewater treatment plants
General Rural Zone	New wastewater treatment plants 1. Activity status: Restricted Discretionary Matters of discretion are:
General	Activity status: Restricted Discretionary
General Rural Zone Large Lot Residential	Activity status: Restricted Discretionary Matters of discretion are:
General Rural Zone Large Lot Residential Zone General Industrial	Activity status: Restricted Discretionary Matters of discretion are:
General Rural Zone Large Lot Residential Zone General Industrial Zone Light Industrial	Activity status: Restricted Discretionary Matters of discretion are:
General Rural Zone Large Lot Residential Zone General Industrial Zone Light Industrial Zone	Activity status: Restricted Discretionary Matters of discretion are:
General Rural Zone Large Lot Residential Zone General Industrial Zone Light Industrial Zone Airport Zone Hospital	Activity status: Restricted Discretionary Matters of discretion are:
General Rural Zone Large Lot Residential Zone General Industrial Zone Light Industrial Zone Airport Zone Hospital Zone	Activity status: Restricted Discretionary Matters of discretion are:

All other Zones	2. Activity status: Discretionary
INF-R21	Amateur radio configuration
All Zones	Activity status: Permitted
	Where:
	a. Compliance is achieved with INF-S7 and INF-S11; and b. Compliance is achieved with INF-S1.
All Zones	2. Activity status: Restricted Discretionary
	Where:
	a. Compliance with any of the requirements of INF-R21.1.a cannot be achieved.
	Matters of discretion are:
	1. The matters set out in INF-P8 and INF-P <u>12</u> 13 .
All Zones	3. Activity status: Non-Complying
	Where:
	a. Compliance with the requirements of INF-R21.1.b cannot be achieved.
INF-R22	Buildings, structures and activities in the National Grid Yard
- All Zones	1. Activity status: Permitted
	Where:
	a. The activity is not a sensitive activity; b. The building or structure is not used for the handling or storage of hazardous substances (Hazardous Substances (Hazard Classification) Notice 2020) with explosive or flammable intrinsic properties (except this does not apply to the accessory use and storage of hazardous substances in domestic scale quantities); and
	c. The structure is a fence not exceeding 2.5m in height; d. The building is an uninhabited farm or horticultural structure or building (but not commercial greenhouses, protective canopies, wintering barns, produce packing facilities, or milking/dairy sheds (excluding ancillary stockyards and platforms); e. Alterations and additions to an existing building or structure for a sensitive activity, which does not involve an increase in the building height or building footprint; or f. An accessory building associated with an existing residential activity that is less than 10m² in footprint and 2.5m in height; g. Infrastructure undertaken by a network utility operator as defined in the Resource Management Act 1991 or any part of electricity infrastructure that connects to the National Grid; and h. Compliance is achieved with INF-S12.
All Zones	2. Activity status: Non-complying
	Where:
	a. Compliance with INF-R22.1 cannot be achieved.
	Notification status: An application for resource consent made in respect of rule INF-R22.2 is precluded from being publicly notified.

	- Notice of any application for resource consent under this rule must be served on Transpower New Zealand Limited in accordance with Clause 10(2)(i) of the Resource Management (Forms, Fees, and Procedures) Regulations 2003.
INF-R <u>22</u> 23	Sensitive activities, including the erection of buildings for sensitive activities, within the Gas Transmission Pipeline Corridor Network
All Zones	1. Activity status: Restricted Discretionary Matters of discretion are: 1. The extent to which the proposed activities are likely to compromise the stability and integrity of the gas transmission pipeline network and the operation, maintenance and upgrading of the pipeline network; 2. The risk of hazards affecting public or individual safety, and the risk of property damage; 3. Measures proposed to avoid or mitigate potential adverse effects on the gas transmission pipeline network; 4. The outcome of any consultation with the owner and operator of the gas transmission pipelines network; and 5. Whether the sensitive activity could be located a greater distance from the gas transmission pipelines network. Notification status: An application for resource consent made in respect of rule INF-R23 is precluded from being publicly notified. Notice of any application for resource consent under this rule must be served on the owner and operator of the Gas Transmission Pipeline Network in accordance with Clause 10(2)(i) of the Resource Management (Forms, Fees, and Procedures) Regulations 2003.
	 This rule also applies to the establishment of a sensitive activity in an existing building, or any change of land use to a sensitive activity. If a resource consent application is made under this rule, the owner and operator of the gas transmission pipelines network will be considered an affected person in accordance with section 95E of the Act and notified of the application, where written approval is not provided.
INF-R24	Connections to roads
- All Zones	1. Activity status: Permitted Where: a. The connection provides site access for sites with no driveway, on-site parking or loading; and b. Compliance is achieved with INF-S16; or c. The connection provides site access to an Urban Road (except a Transit Corridor) or a Rural Road (except National Highway) as identified in mapped in the road classification overlay; and d. Compliance is achieved with INF-S17.
- All Zones	2. Activity status: Restricted Discretionary Where:

	a. Compliance with the requirements of INF-R24.1 cannot be achieved.
	- Matters of discretion are:
	- 1. The matters in INF-P13.
INF-R <u>23</u> 25	New roads
All Zones	Activity status: Restricted Discretionary
	Where:
	a. Compliance is achieved with the following standards:
	 i. INF-S3; ii. INF-S1648; and iii. Compliance with the requirements of New Zealand Standard NZS6806:2010 Acoustics — Road Traffic Noise — New and Altered Roads. Clause iii shall apply only to new roads predicted to carry at least 2,000 annual average daily traffic (AADT) at the design year. In circumstances where NZS6806:2010 Acoustics — Road Traffic Noise — New and Altered Roads does not apply, as listed in paragraph 1.3.1 of NZS6806:2010 Acoustics — Road Traffic Noise — New and Altered Roads.
	Matters of discretion are: 1. The classification of the proposed road and how the proposed aligns with INF-S <u>12</u> 13; and 2. Design of the road.
	Section 88 information requirements for applications:
	Applications under this rule must provide, in addition to the standard information requirements:
	 a. A detailed design road safety audit in accordance with the NZTA Road Safety Audit Procedures for Projects — Guidelines, Transfund New Zealand Manual No. TFM9 2013; and
	 b. A classification assessment of the proposed road(s) against the Waka Kotahi New Zealand Transport Agency <u>Waka Kotahi</u> One Network Framework 2021.
All Zones	2. Activity status: Discretionary
	Where:
	a. Compliance with the requirements of INF-R25.1 cannot be achieved.
	Section 88 information requirements for applications:
	Applications under this rule must provide, in addition to the standard information requirements:
	 a. A detailed design road safety audit in accordance with the NZTA Road Safety Audit Procedures for Projects — Guidelines, Transfund New Zealand Manual No. TFM9 2013; and b. A classification assessment of the proposed road(s) against the Waka Kotahi New
	Zealand Transport Agency Waka Kotahi One Network Framework 2021
INF-R <u>24</u> 26	Structures and vegetation near railway level crossings
All Zones	Activity status: Permitted

	Where:
	a. Compliance is achieved with INF-S <u>15</u> 44.
All Zones	2. Activity status: Discretionary
Standards	
INF-S1	Health and safety
All Zones	1. The maximum exposure levels must not exceed the levels specified in NZS 2772:1999 'Radiofrequency Fields — Maximum exposure levels — 3kHz to 300 GHz.'; and 2. Infrastructure that emits electric and magnetic fields must comply with the International Commission on Non-ionising Radiation Protection Guidelines for limiting exposure to time-varying electric and magnetic fields (1 Hz — 100 Hz), Health Physics 99(6):818-836; 2010, and the recommendations from the World Health Organisation monograph Environmental Health Criteria (No 238, 2007).
INF-S2	Underground infrastructure
All Zones	1. The utility structures must be located underground and must not be on or within a natural waterbody, except where it is: a. Attached to and/or incorporated within an existing bridge structure; b. Within an existing attached conduit or duct; or c. Installed beneath a waterbody (without disturbance of the bed). 2. For the installation or upgrading of pipelines, a gauge pressure of 2000 kilopascals must not be exceeded.
INF-S3	Earthworks
All Zones	 Earthworks must not create a dust nuisance; As soon as practical, but not later than three months after the completion of earthworks or stages of earthworks, the earthworks area must be stabilised with vegetation or sealed, paved, metalled or built over; Trenching must be progressively closed and stabilised such that no more than 120m of continuous trench is exposed to erosion at any one time; Land disturbed for the operation, repair, renewal, upgrading or maintenance of utilities must be stabilised by re-vegetation, grassing or other suitable means as soon as practicable after completion of the works to avoid erosion and scouring; and Works must not result in any instability of

	land or structures at or beyond the boundary of the property where the land disturbance occurs.	
INF-S4	Upgrading of aboveground infrastructure	
All Zones	 The realignment, relocation or replacement of a line, pipe (excluding a liquid petroleum or gas transmission pipelines network), telecommunication pole, pole, tower, conductor, switch, transformer or ancillary structure must be located within 5m of the existing structure; A pole must not be replaced with a tower; A replacement pole, tower or telecommunication pole must not exceed the height of the replaced pole or tower or telecommunication pole, or the maximum structure height provided for in INF-S8, whichever is higher; The diameter or width of a replacement pole or telecommunications pole: Must not exceed twice that of the replaced pole at its widest point; or Where a single pole is replaced with a pi pole, the width of the pi pole structure must not exceed 4.2m; A replacement tower's footprint must not exceed the width of the tower by more than 25%; The upgrade must not include additional towers; A maximum of two additional poles may be provided where it is necessary to achieve the conductor clearances required by NZECP 34:2001; and The realignment, relocation or replacement of any other structure or building: Must be within 5m of the alignment or location of the original structure or building; Must not increase the footprint of the structure or building by greater than 30%. 	
INF-S5	New aboveground customer connections	
All Zones	The connection must not exceed three additional poles; and The diameter of conductors, lines, pipes or cables must not exceed 30mm43mm.	
INF-S6	Structures	
All Zones	The height of new buildings and structures must not exceed a maximum height of 3.5 metres; or The maximum area of new buildings and structures is:	

INF-S7	Riparian setbacks
All Zones	1. No infrastructure shall be located on or in land within 10 metres of the bed of any river. This setback does not apply to infrastructure that is located within formed legal road or crosses a river along a bridge, or for infrastructure that is installed via trenchless methods where: a. Access pits for the trenchless method does not exceed 1m²; b. Erosion and sediment control measures are installed around the access pit; and c. The access pit is reinstated in a manner which achieves the same surface as prior to works taking place.
INF-S8	Height of <u>electricity and</u> telecommunication poles and associated antennas, lines and single pole support structures and meteorological masts
All Zones	1. Telecommunication poles, associated antennas, lines and single pole support structures, must not exceed a maximum height of the permitted height for the relevant zone, plus 5 metres; 2. A further 5 metres in height is afforded where two or more infrastructure providers are co-located on the same structure; 3. Meteorological masts must not exceed a maximum height of the permitted height for the relevant zone, plus 25 metres, except for a Residential Zone where the maximum height is the zone height; and 4. Where a telecommunication pole and associated antennas, lines and single pole support structure and meteorological masts are located on a site that is not road reserve and adjoins a Residential Zone boundary, the relevant building recession plane standard for that boundary must be complied with.
INF-S9	Antenna size
All Zones	 A panel antenna: a. must not exceed a width of 0.7m; and b. when in a road reserve, must fit within an envelope of 3.5m in length and 0.7m in width; A dish antenna must not exceed a diameter of 1.2m; Omni directional 'whip' or dipole antenna must not exceed: a. 1.6m in vertical length; b. 60mm in diameter; and c. 1.5m in horizontal length; A headframe must not exceed: a. 2.5m in diameter in Residential Zones (except when located in a road); or b. 6m in diameter in all other zones.

INF-S10	Height of antenna attached to buildings	
All Zones	 If the antenna is attached to a vertical surface, the top of the antenna must not extend more than 5m above the top of that surface, directly above the point at which the antenna is attached to the building; or In all other cases, the top of the antenna mist not be more than 5m above the point at which the antenna is attached to the building; and If the building is in a Residential Zone, the lowest point at which the antenna is attached to the building must be at least 15m above the ground. 	
INF-S11	Amateur radio configurations	
All Zones	1. Supporting structures and poles must comply with the following: a. Must not exceed 102mm in diameter; or b. A maximum of one support structure greater than 102mm where the maximum height of the supporting structure must not exceed the relevant zone building height, the horizontal diameter of the pole or supporting structure must not exceed 800mm, the structure must be set back 1.5m from any boundary, and any guy wires used to support the pole must not exceed 10mm in diameter; 2. Dish antennas located less than 5m above ground must not exceed a maximum horizontal diameter of 4m and must have a minimum boundary setback of 1m. Dish antennas situated more than 5m above ground have a maximum diameter of 1.2m; and 3. The maximum height of antennas mounted on buildings using a supporting structure less than 102mm diameter shall be 18m in the Residential Zones and 18m or the relevant permitted or actual Building Height plus 5m (whichever is greatest) in all other Zones.	
INF-S12	Buildings, structures and activities in the Natio	nal Grid Yard
All Zones	1. The building or structure must have a minimum vertical clearance of 10m below the lowest point of a conductor under all transmission line and building operating conditions; or 2. Must meet the safe electrical clearance distances required by New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP 34:2001) ISSN 01140663 under all transmission line and building operating	

conditions. 3. The building or structure must be located at least 12m from the outer visible edge of a foundation of a National Grid transmission line tower or pole, except where it: a. Is a fence not exceeding 2.5m in height that is located at least: i. 6m from the outer visible edge of a foundation of a National Grid transmission line tower; or ii. 5m from the outer visible edge of a foundation of a National Grid transmission line pole. b. Is an artificial crop protection structure or crop support structure not exceeding 2.5m in height and located at least 8m from a National Grid transmission line pole that: i. Is removable or temporary to allow a clear working space of 12m from the pole for maintenance; and ii. Allows all weather access to the pole and a sufficient area for maintenance equipment, including a crane; or iii. Meets the requirements of clause 2.4.1 of New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP 34:2001) ISSN 01140663. INF-S1213 Design of roads 1. Roads must provide for traffic in accordance with Table 1 — INF: Design of Roads — One Network Framework; 2. Roads must be designed to achieve design speeds in accordance with Table 1 — INF: Design of Roads — One Network Framework: 3. Roads must have at least the minimum widths in accordance with Table 1 — INF: Design of Roads — One Network Framework: a. Minimum total, legal width; and b. Minimum width to provide for: i. Pedestrians; ii. Cycling; iii. Micromobility; iv. Stationary vehicles including car parking, bus stops, loading areas as well as build outs for traffic calming or additional infrastructure; v. Vehicles: vi. Infrastructure; and vii. Street trees. 4. The maximum gradient of roads must be in

- accordance with Table 1 INF: Design of Roads One Network Framework;
- 5. Curves in roads must meet the following minimum values:
 - a. K Values for crest vertical curves and sag vertical curves must be in accordance with Table 4 — INF: Road Vertical Curves and Horizontal Curves: and
 - b. R Values for horizontal curves must be in accordance with Table 4 — INF: Road Vertical Curves and Horizontal Curves.
- 6. Street trees must be provided in accordance with:
 - a. Table 1 INF: Design of Roads One Network Framework;
 - b. Street trees must not be planted in the Infrastructure Berm;
 - c. When street trees are required in accordance with Table 1 INF: Design of Roads One Network Framework, they must be provided in accordance with the number of trees per Size Class at Maturity set out in Table 2 INF: Street Trees and species in accordance with Table 3 INF: Street Tree Species List;
 - d. Street tree planting must meet the requirements set out in Table 2 — INF: Street Trees for the following:
 - i. Horizontal Setback Distances from Underground Infrastructure;
 - ii. Horizontal Setback Distances from Structures;
 - iii. Minimum Berm Width;
 - iv. Minimum Topsoil Depth; and
 - v. Minimum Soil Volume.
- 7. Each street tree must be provided with a root barrier to a depth of 600mm below the surface: and
- 8. Streetlighting must be provided in accordance with the following:
 - a. Streetlighting must be designed in accordance with NZ Transport Agency document M30 Specification and Guidelines for Road Lighting Design (2014);
 - Streetlighting lamps must be on the NZ Transport Agency List of M30 Approved Luminaires (2021);
 - Streetlighting columns must be in accordance with the NZ Transport Agency M26:2012 and M26A:2017 Specification for Lighting Columns; and
 - d. Streetlighting columns in Local Street, Activity Street, Main Street, Urban Corridor or Rural Road must be a minimum of 8m in height.

Table 1 — INF: Design of Roads — One Network Framework

One	Expect	Targ		Minimu	m widt	h (m)						Numb
Network Framewor k Classificat ion	ed maxim um vehicle volume (vehicl es per day)	et spee d (km/ h)	um gradien t	Footpa th	Cycl es	Traffic (must provide unhinder ed vehicle access includin g firetruck access)	•	Stationa ry vehicles (parking/ bus stop/loa ding) and Build outs for cycle and micromo bility parking, street trees Passing bays	Infrastruct ure berm	Stre et tree ber m	Leg al widt h	er of street trees
Urban												

/pical Plan and Cross Section EBART	reat 5 P3 6 Phicle ccess ontage	250	10	12.5%	2 x 1.8	0	1 x 3.5	1 x 2.5 (alternating sides of road)	2 x 1.0	0	11.6	As per Table 2 – INF: Street Trees
Shared Movement I x 3.5m Total Wath (Legal Width) Torget Speed 10km/h Expected Maximum Vehicles Per Day **Total Veh	ELEMENT infrastructure to Footpath Street Tree Ber	Berns erm	2×1.0m 2×1.8m Not included	Section				á				
Total Width (legal Width) Torget Speed 10km/h Expected Maximum. Vehicles Per Day	and fulld Out		1 x 2.5m Alternating Sides)									
Target Speed 10km/h Expected Maximum. Vehicles Per Day	Total Width		7.55					0.300				
Expected Masimum Vehicles Per Day 250		- 8						(4)				
Vehicles Per Day Maximum Gradent 12,5%		. 11	100 cm fbs				-					
								100				
	Expected Max Vehicles Per D	Day	250				1					

Applical Plan and Cross Section Selected Methods with the plan Methods	reet M5	100	00	30	12.5%	2 x 1.8	0	2 x 2.9	0	2 x 1.0	2 x 2.0	15.4	As per Table – INF: Street Trees
infrastructure Berm 2 x 1.0m Footporti 2 x 1.8m Street Tree Berm 2 x 2.0m Stationary Vehicles and build Qut Italie 2 x 2.9m Total Watth Regal Width Regal Width Expected Maximum Vehicles Per Day 1000 1000	pical Pl	an a	and C	ross S	ection				•	•			
infrastructure Berm 2 x 1.0m Footporti 2 x 1.8m Street Tree Berm 2 x 2.0m Stationary Vehicles and build Qut Italie 2 x 2.9m Total Watth Regal Width Regal Width Expected Maximum Vehicles Per Day 1000 1000	20.04												
Footporth Street Tree Berm Strationary Vehicles and build Qurl Itieffic Total Width (Regal Width) Torget Speed Expeed Maximum Vehicles Per Day Fill 000 Fil	1577 10.00	e Serre	T. C.	040000					-				
Stationary Vehicles and full Cut 2 x 2.9m Total Width (Regal Width) Torget Speed Speed Speed Speed 1000 1000 1000 1000 1000 1000 1000 1			100						1	No.			
and fluid Quil 1 taffe 2 x 2.9m Total Wath (Regal Width) Torget Speed 30km/h Expected Maximum Vehicles Per Day	Steet free 8	erm.	2×2	0m				h	43				
Total Width (Negal Width) Torget Speed Expected Maximum Vehicles Per Day 1000	Stationary V	ehicles	Not incl	uded							Elia-		
(Jegar Width) Target Speed 30km/h Expected Maximum. Vehicles Per Day 1000		er.	2×2	9m					N. Comments				
Target Speed 30km/h Expected Maximum. Vehicles Per Day	Total Width	a a	15.4	m									
Expected Maximum. 1000 Vehicles Per Day				w.			All .						
Vehicles Per Day			5.00					1					
Maximum Crogerial 12,5%	Vehicles Per	Day						100				300	
				ST SAN		1	1						

Local 20 Street M5 P4 e.g. Bickerton Rise, Churton Park]	00 30	12.5%	2 x 1.8	0	2 x 3.0	1 x 2.2	2 x 1.0	2 x 2.0	17.8	As per Table 2 – INF: Street Trees
ELEMENT ELEMENT Infractructure Berm. Footporth Strationary Vehicles and Strationary Vehicles and Busecled Maciny Maximum Gradient Torget Speed Busecled Maciny Vehicles Per Doy Maximum Gradient	2 x 1.0m 2 x 1.8m 2 x 2.0m 1 x 2.2m 2 x 3.0m 17.8m	Section								
LOCAL STRI	EET M.S. P.4 et recysions									

Local Street M4 [e.g. Washington Avenue, Brooklyn]	3000	50	12.5%	2 x 1.8	2 x 1.8 (cycle lane)	2 x 3.0	2 x 2.6	2 x 1.0	2 x 2.0	24.4	As per Table 2 – INF: Street Trees
Typical Plan ELEMENT Infrastructure Ber Footpoth Street Tree Berm Stationary Vehicle and Build Out Indiff Cycles Total Width legal Width Target Speed Expected Maxim Wehicles Per Day Maximum Grade	MRBMUMA WID m 2 x 1.5m 2 x 1.8m 2 x 2.6m 2 x 3.0m 2 x 1.8m 3 000 12.5%	TH .	ction								
							T)				
Civic Space [e.g. Cuba Mall, Civic Square]		Discre	tionary res	ource coi	nsent req	uired					

tivity eet g. tawa , aio]	8000	30-50	5%	2 x 2.4	2 x 1.8 (cycle lane)	2 x 3.2	2 x 2.6	2 x 1.0	2 x 2.0	26.0	As per Table – INF: Street Trees
pical P	lan and	Cross S	ection								
2712							2000				
© Infrastructur		UM WIDTH 2 x 1.0m					14				
Footpath	100	2 x 2.4m					THE WOOD	All Control			
Steet Tree !	00000	2 x 2.0m			100	1		-			
Stationary V and Build C	8500	2 x 2.6m				1		1		ode	
and fulld 0		2 x 3.2m				1		4		36.1	
Cycles		2 x 1.8m			1	100	1		1		
Total Width (Legal Width		26.0m		37					Jan 1		
	2 M 23	3-50km/h			1		-				
Target Spee Expected N	100	8000						1000			
Vehicles Pe	r Day					-		Carried !	100-7		3
Maximum C	Gradient	5% ad	No.			00	1/10		6		2
							A A				
		•	000								

Main Street [e.g. Johnsonville Rd, Johnsonville]	8000	30	5%	2 x 3.0	2 x 2.0	2 x 3.2	2 x 2.6	2 x 1.0	2 x 2.0	27.6	As per Table 2 – INF: Street Trees
Typical Plan	and Cro	oss Sec	ction	1					·	J	1
ELÉMENT	I MINIMUM WIDT	H									
infrastructure 8ems	2×1.0m	2					16	-			
Footpath	2 x 3.0m					1	8	1			
Street Tree Berm	2 x 2.0m			1		GR no.	1	300			
Stationary Vehicles	2 x 2.6m				` 4		100	Mark	44		
and fulld Out Traffic	2 x 3.2m						Property		Sille.		
Cycles	2×2.0m										
				1	/		1000	, ,	540		
Total Width (Legal Width)	27.6m			No. of Contract of	/	4.6	1	Size 1	0.02		
Target Speed	30km/h			1	1				125	/	
Expected Maximum	8000		100	4			1 0		K		
Vehicles Per Day Maximum Gradient	5%		09-24	/	The same	00,	1		1		
					1	dr i					
MAIN STREE	ET HI PROVIDICHS										
Sity Hub		Dicara	tionomana	nouros ss	oont ros	uirod					
City Hub e.g. .ambton Quay]		DISCLE	попагу ге	source con	iseni reqi	urea					

Urban Connector [e.g. Burma Rd, Middleton Rd]	8000	50	12.5%	2 x 1.8	2 x 2.0	2 x 3.2	2 x 2.6	2 x 1.0	2 x 2.0	25.2	As per Table 2 – INF: Street Trees
EEMENT infractructure Be Footpoff Stretchoopy Vehicle Cycles Total Width (legal Width) Vehicles Per Day Maximum Cradi	MRBMUM VI 2 x 1.0 2 x 1.8 2 x 2.8 2 x 2.0 2 x	TOTAL	etion							No.	
Transit Corridor [e.g. Hutt Rd, Wellington]		Discre	tionary re	source co	onsent re	quired					
Rural											
Rural Stopping Place		Discret	tionary re	source co	onsent red	quired					

Rural 2 Road [e.g. Takarau Gorge Rd]	2500	60	12.5%	1 x 2.5 (shared, separate d path)	0	2 x 3.0	2 x 0.5 (sealed shoulder)	1 x 2.5 (betwee n property boundar y and path) 1 x 1.0 (betwee n path and road shoulder 1 x 3.0 (side without path)	NA	16.	N A
ELEMENT Infrastructure 8 Shored Path Infrastructure 8 Sealed Should India I	MREMIL Berm 1 Ser 2 Berm 1 Berm 1	M WIDTH 425m 425m 425m 425m 435m 435m 435m 660m 58m/h 58m/h									
RURAL R	OAD Aughori Provi										
Peri-urban Road		Discr	etionary	resource c	onsent re	equired					
Rural Connector		Discr	etionary	resource c	onsent re	equired					
National Highway		Discr	etionary	resource c	onsent re	equired					

Table 2 — INF: Street Trees

class at	Heigh t at maturi ty	Minim um number of trees per 100m of road	Manhole s,	om d	Horizonta distances (m) Hard surfaces (footp aths etc); Road kerbs; Vehicle crossings; and Masonry walls		• Stre et light s	Minim um berm Width (m)	Minin um topso depth (m)	oil so	linim m oil olum n³)
<300mm Tree spe must be selected the list in Table 3 - INF: Stre Tree Spe List	from	3-8 4	0.50	4.0	0.6	0.7		5.0	1.5	0.5	10.0

300 - 600mm	5-10	4	1.5	4.0	1.0	1.5	5.0	2.0	0.6	12.0
Tree species must be										
selected from the list in										
Table 3 — INF: Street										
Tree Species List										

Table 3 — INF: Street Tree Species List

Botanical name	Common name	Size class	Height (m)
Acer campestre	Field Maple	<300mm	8
Alnus Cordata	Italian Alder	<300mm	8
Arbutus unedo	Strawberry Tree	<300mm	8
Banksia integrifolia	Coast Banksia	<300mm	8
Dodonaea viscosa	Ake Ake	<300mm	3
Fraxinus griffithii	Evergreen Ash	<300mm	5
Leptospermum nitidum	Tea Tree	<300mm	5
Liriodendron Tulipfera Fastigiatum	Upright Tulip Tree	<300mm	8
Melia Azedarach	Persian Lilac	300mm	8
Olea europaea	European Olive	<300mm	5
Parrotia persica	Persian Ironwood	<300mm	5
Sophora microphylla	Kowhai	<300mm	8
Sophora tetraptera	Large-leaved Kowhai	<300mm	8
Sorbus aucuparia	Mountain Ash	<300mm	5
Acer negundo	Box Maple	300 - 600mm	10
Cordyline australis	Cabbage Tree	300 - 600mm	8
Eucalyptus ficifolia	Red Flowering Gum	300 - 600mm	8
Fraxinus oxycarpa	Claret Ash	300 - 600mm	10
Ginkgo biloba	Maidenhair Tree	300 - 600mm	10
Ginkgo biloba "Fastigiata"	Upright Maidenhair Tree	300 - 600mm	10
Knightia excelsa	Rewarewa	300 - 600mm	10
Liquidambar styraciflua	American Sweetgum	300 - 600mm	10
Liriodendron Tulipfera	Tulip Tree	300 - 600mm	10
Platanus Acerifolia	London Plane	300 - 600mm	10
Platanus Orientalis	Oriental Plane	300 - 600mm	10
Taxodium Distichum	Swamp Cypress	300 - 600mm	10

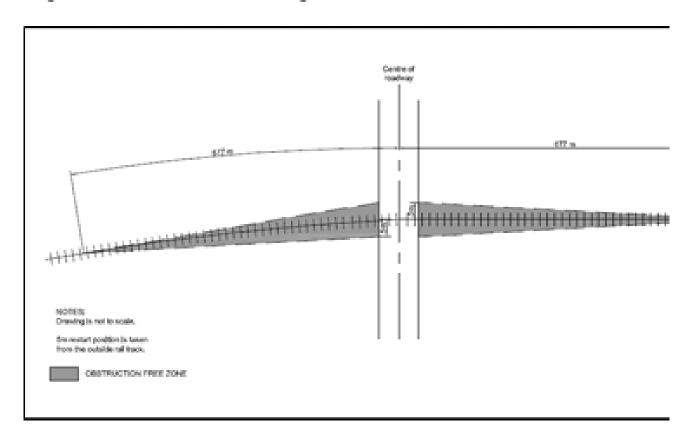
Ulmus carpinifolia	Smooth Leaved Lime	300 - 600mm	10
Ulmus Hollandica	Upright Elm	300 - 600mm	10
Zelkova serrata	Zelkova	300 - 600mm	10

Table 4 — INF: Road Vertical Curves and Horizontal Curves

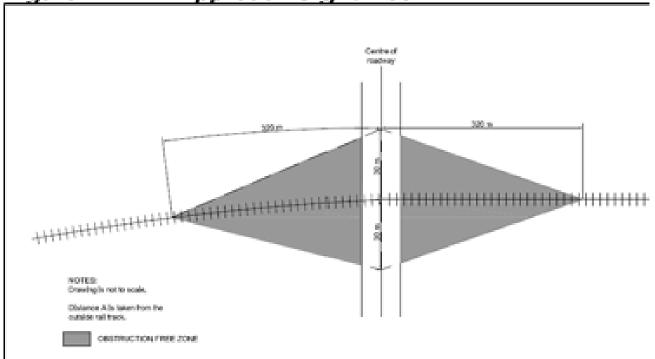
Operating spe	ed (km/h)			n K value for ical Curves	Minimum R value for Horizontal Curves	
≤20		15	3		20	
21-30		17	3		30	
31-40		20	3		40	
41-50		33	4		50	
51-60		50	6		Specific design	
61-70		71	8		Specific design	
71-80		100	10		Specific design	
INF-S <u>13</u> 14	Sight Triangl	es for Railway Level Cro	ssings			
	obstructions n sightline areas shown in the	nctures, plantings or other on the substantial plantings of railway level crossings shaded areas of Figure 1 – ines and Figure 2 – INF: Appw.	visual Assessment criteria where the infringed: s as — INF: 1. Effects on the safety and		n the safety and efficiency of	

Figure 1 — INF: Restart Sightlines

Figure 1 – INF: Restart Sightlines







INF-S <u>14</u> 15	Connection to roads - sites with pedestrian, cyc	cling and micromobility site access only
-	1. For sites with frontage to a road:	-

	T				
	a. The direct legal road frontage must				
	have a width of at least 1.8m.				
	2. For sites with no frontage to a road:				
	a. Access must be provided to a road via				
	an access easement with a width of at				
	least 1.8m				
INF-S16	Connection to roads - driveways				
-	1. The number of vehicle crossings per site	-			
	must not exceed one;				
	2. The minimum design vehicle for a vehicle				
	crossing is a 5.20m x 1.94m vehicle (99th				
	percentile vehicle);				
	3. For Urban Roads, the length of a vehicle				
	crossing parallel to the road must be no				
	more than:				
	a. 3m for Driveways Level 1; or				
	b. 6m for Driveways Level 2 and 3.				
	4. For Rural Roads:				
	a. The vehicle crossing must be sealed				
	between the road carriageway and the				
	property boundary; and				
	b. The entry and exit turn radius of the				
	vehicle crossing must each be at least				
	9.0m;				
	5. Where the vehicle crossing incorporates a				
	pedestrian, cycling or micromobility path,				
	the crossfall of the path must meet not				
	exceed 2.5%;				
	6. The vehicle crossing for a site with frontage				
	to two or more roads must connect to the				
	road with the lower number of vehicle				
	movements per day;				
	Vehicle crossings must not be located				
	within 10m of an intersection tangent point				
	as shown as the heavy line between Points				
	A and B in Figure 2 — INF: Vehicle				
	Crossings in Relation to Intersections. In				
	addition, vehicle crossings for Driveways				
	Level 2 and 3 must not be located at the top				
	of a T-intersection as shown as the heavy				
	line between Points C and D in Figure 2 -				
	INF: Vehicle Crossings in Relation to				
	Intersections;				
	7. The distance from vehicle crossings to				
	railway crossings must be at least 30m,				
	measured from the nearest edge of the				
	vehicle crossing to the nearest railway				
	track;				
	8. Connections to the road reserve must				
	provide clear visibility splays for pedestrian				
	safety from 1.0m above ground level as				
	shown in Figure 3 — INF: Driveway				
	Visibility Splays and Sight Distances.				
	Driveways Levels 2 and 3 must provide the				
	visibility splay on the left hand exit side				
	only. For Driveways Level 1 where the				
	driveway is within 2.0m of the adjoining				
	property boundary, the visibility splay is not				
	property boundary, the violatinty opiny to hot				

required if a 75mm high speed hump is
installed 1.0m from the road boundary;

9. Sight distances from vehicle crossings as
shown in Figure 3 — INF: Driveway
Visibility Splays and Sight Distances; and
10. Must comply with Table 5 — INF: Minimum
Sight Distances at Vehicle Crossings.
Note: Limited Access Roads may have additional
or different requirements under the Government
Roading Powers Act 1989.

Figure 2 — INF: Vehicle Crossings in Relation to Intersections

Figure 3 — INF: Driveway Visibility Splays and Sight Distances

Table 5 — INF: Minimum Sight Distances at Vehicle Crossings

Frontage speed limit		Driveway level 1	Driveways levels 2 & 3	
- (km/h)		Minimum sight distance (m)	Minimum sight distance (m)	
		(see Figure 3 — INF: Driveway Visibility Splays and Sight Distances)	(see Figure 3 — INF: Driveway Visibility Splays and Sight Distances)	
30		25	25	
40		30	35	
50		40	45	
60		55	65	
70		70	85	
80		96	105	
INF—S17	Intersections			
_	safe connect and must ta traffic flows 2. Intersection 3. Minimum sign shown in Fig at Intersecti	s must be designed to ensure civity of roads for all road users ke into account the expected once development is complete; s must be formed at 90°; and ght distances at intersections as gure 4—INF: Sight Distances ons must comply with Table 6 imum Sight Distances at New s.		

Figure 4 — INF: Sight Distances at Intersections

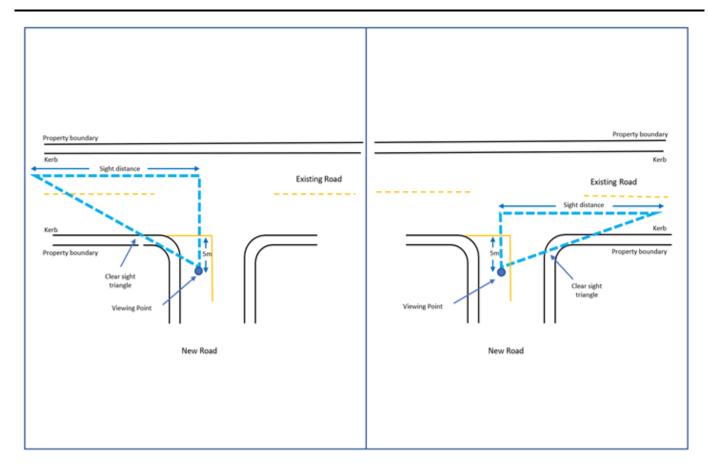


Table 6 — INF: Minimum Sight Distances at New Intersections

Table 6 — INF: Minimum Signt Distances at New Intersections				
Operating speed (km/h)		Minimum sight distance (m)		
of Existing Road		(see Figure 4 — INF: Sight Distances at Intersections)		
<30		50		
≤31-40		75		
41-50		100		
51-60		125		
61-70		150		
71-80		180		
INF-S <u>151618</u>	Cabinets, electric vehicle charging stations, temporary infrastructure and temporary electricity generators and self-contained power units to supply existing infrastructure, bus shelters and any other infrastructure structure or infrastructure building not otherwise provided for that are located within the road reserve or rail corridor			
	The structure must not exceed: a. Maximum height above grows of 2.5m; and b. Maximum footprint of 6m²	round level	Assessment criteria where the standard is infringed: 1. Local, regional and national benefits of the infrastructure or community facilities; 2. Any adverse effects on the streetscape and the amenity values of the area; 3. The amenity of adjoining sites; 4. Traffic and pedestrian safety including	

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constraints that make compliance with the permitted standard impracticable.

Infrastructure